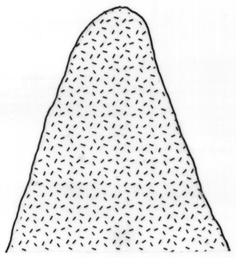
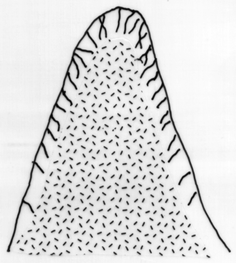
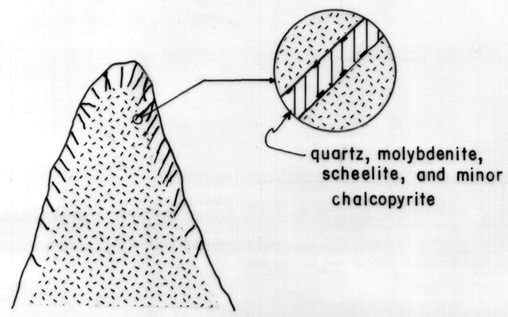


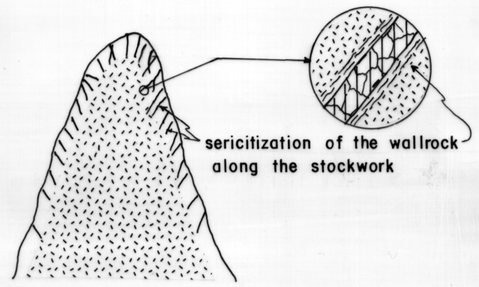
Stage 1) Emplacement of the granodiorite to quartz diorite intrusive



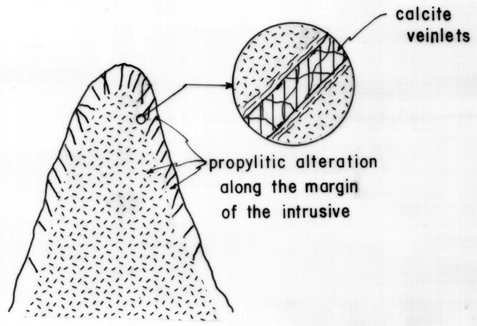
Stage 2) Initial cooling and development of tensional stockwork fractures



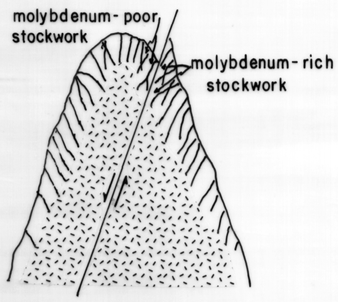
Stage 3) Deposition of quartz, molybdenite, scheelite, and chalcopyrite along the stockwork fractures



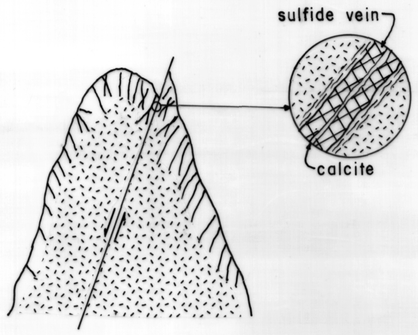
Stage 4) Further cooling and movement along the stockwork fractures resulted in smearing of the molybdenite along the contacts and fracturing of the quartz



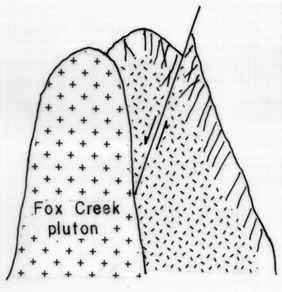
Stage 5) Introduction of calcite which replaced some quartz and formed veinlets in the fractured stockwork



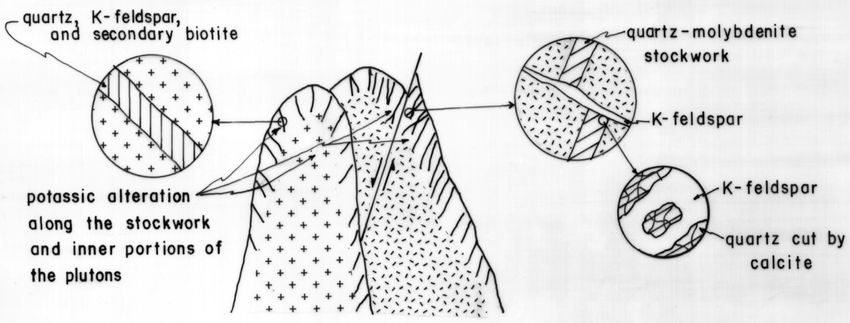
Stage 6) Additional faulting which resulted in uplift of molybdenum-rich stockwork



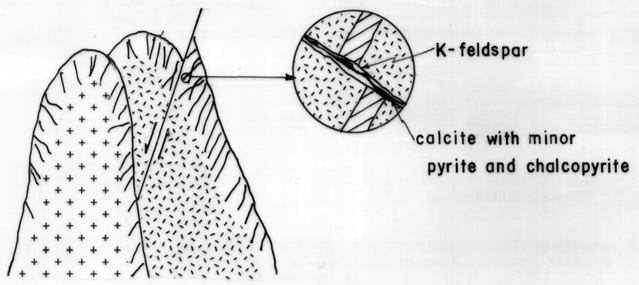
Stage 7) Deposition of pyrite, sphalerite, galena, chalcopyrite, arsenopyrite, and later calcite along joints and shear zones



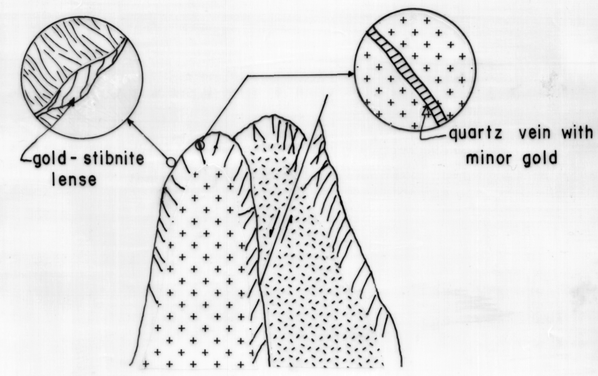
Stages 8 & 9) Emplacement of the quartz monzonite and accumulation within the chamber of residual fluids rich in silica, alumina, and potash



Stage 10) Introduction of a potassic fluid phase which crosscut the quartz-molybdenite stockwork and also entered fractures in the quartz monzonite



Stage 11) Introduction of a carbonate phase along the crosscutting fractures of stage 10 resulted in deposition of calcite and minor pyrite and chalcopyrite



Stage 12) Deposition of minor gold-quartz veins within the quartz monzonite. Gold-stibnite lenses and pods were also deposited within the contact zone.

SEQUENCE OF MAJOR HYDROTHERMAL EVENTS, SILVER FOX MINE